Initial TAC Prioritization Results (10-23-13)

The TAC conducted a multi-voting exercise to identify top priorities relative to potential management programs, projects and activities (collectively referred to as "management actions" hereafter) conducted in year 1 and beyond during GMP implementation. The "green" list below represents preliminary priority actions that are guided by DWR Water Code requirements. The "orange" list represents additional potential management actions pending available funding. Following initial discussion of the green list, TAC members voted to identify the top 24 management actions in the orange list that they, and the constituency they represent, consider a priority action. The left column below presents cumulative results of all votes cast by TAC members in attendance at the October 23, 2013 TAC meeting. Management actions that received the highest number of votes are listed first, with actions following that received less votes.

Legend for "orange" management recommendations (post-prioritization multi-voting)
Red = high priority (received 3 or more votes during prioritization)
Yellow = medium priority (received 1-2 votes during prioritization)
Blue = low priority (received no votes during prioritization)

No.	Recommended Action
5.1.1	*Involving the Public*
	a. Circulate copies and publish the adopted Plan and subsequent periodic reports on website.
	b. Develop an informational flyer on the Plan to accompany mailings from water agencies and companies, as well as mailings to private well owners.
	c. Develop and execute a Public Outreach Plan for Plan implementation, which will help maximize outreach on implementation activities, and will encourage public attendance at key advisory meetings and workshops for input.
	d. Develop outreach information that is comprehensible by public members with different levels of education and technical knowledge.
	e. Conduct public forums at key milestones to encourage public participation.
	f. Maintain email and postal mail lists to announce meetings and keep interested parties informed about Plan implementation.
	g. Invite interested parties to participate in Panel meetings.
	h. Meet with representatives from interested organizations as appropriate and get feedback.
	i. Coordinate meetings and conduct briefings within the SRPW to provide information and solicit and report input on the management responsibilities and activities relative to this Plan.
5.1.2	*Advisory Groups*
	a. Following Plan adoption, the current Panel will discuss and recommend the composition of the Panel and the Technical Advisory Committee for Plan implementation.

	b. Conduct quarterly meetings with the Panel to inform and seek guidance on implementation.
	c. Conduct monthly TAC meetings, as needed, to obtain technical input on the various aspects of Plan implementation.
5.1.3	*Informing Stakeholders & Public Agencies*
	a. Continue to maintain and further develop relationships with local, state and federal agencies and organizations to benefit Plan implementation while maintaining local control.
	b. Coordinate and inform land use planning with surface water and groundwater management activities by providing periodic briefings on water and groundwater management activities to local land use planning agencies.
	c. Conduct briefings with the elected officials who have adopted the Plan in conjunction with implementation milestones and annual reporting.
	d. Provide information to increase public awareness of current and future water supplies, demands, and trends in reliability related to a changing climate.
5.1.4	*Partnerships & Coordination*
	a. Continue to promote partnerships that achieve goal and objectives of the Plan
	b. Coordinate Plan implementation activities, collaborate and work to the extent practicable with watershed groups, local stewardship groups, water interest groups, land use planning and management agencies, and state and federal regulatory agencies that have jurisdiction in areas related to Plan activities.
	c. Coordinate efforts to seek grant funding for Plan recommended actions in the Plan Area.
5.2.1	*Monitoring Program*
	a. Assess groundwater elevations on an annual basis for trends, conditions and adequacy of the groundwater level monitoring network.
	b. Develop an outreach program to obtain groundwater level data from volunteer private well owners, private producers, and mutual water companies in the Plan Area.
	c. Coordinate with local, state and federal agencies to investigate opportunities to develop better information on groundwater level monitoring, including projects such as groundwater recharge to incorporate project-specific monitoring.
8 votes	d. Project to conduct systematic, coordinated groundwater elevation monitoring: Establish and fund a Plan Area-wide, standardized, long-term monitoring well network. Select an appropriate group of wells (both public supply and volunteer private wells) to begin monitoring groundwater elevations through cooperative and volunteer efforts.
5.2.1.2	*Groundwater Quality Monitoring*
	a. Assess water quality on an annual or biennial basis for trends, conditions and adequacy of the groundwater quality monitoring network. This will include preparing tables of analytical results, and developing water quality plots and figures, in conjunction with well hydrographs and groundwater level contour maps for the Periodic Plan Implementation Report, described in Section 6.3.

	b. Identify opportunities to capture and integrate existing water quality data for areas where current data is insufficient, including contributions from the DPH, small water distribution system operators (wineries, restaurants, schools and parks), mutual water companies (non-urban residential subdivisions), and other entities.
	c. Integrate other monitoring programs established through efforts such as the NCRWQCB Dairy Program, local recycled water projects and the Salt and Nutrient Management Plan for the Santa Rosa Plain.
6 votes	d. Project – Conduct groundwater quality monitoring: Establish and fund a basin-wide, standardized, coordinated, long-term groundwater quality monitoring network in conjunction with groundwater level monitoring. Consider selecting an appropriate sampling of wells (both public supply and volunteer private wells) to monitor for groundwater quality through cooperative and volunteer efforts.
5.2.1.3	*Inelastic Land Surface Subsidence Monitoring*
	a. Identify available data related to potential inelastic land subsidence due to groundwater extraction in Plan Area: i. Exist survey data ii. Plate Boundary Observatory (PBO) GPS Stations (Figure 5-3)
	b. Evaluate potential benchmark locations for periodic monitoring of land subsidence related to groundwater extraction in the Plan Area: Discuss and coordinate among the Agency, Cotati, Rohnert Park, Santa Rosa, Sebastopol, and Windsor to determine suitable benchmark locations and/or supply wells in the Plan Area, to aid the analysis of potential land subsidence.
5 votes	c. Develop an outreach program to City, County and other institutions responsible for infrastructure to provide information regarding likely indicators of subsidence.
1 vote	d. Develop monitoring program and network for assessing the potential for inelastic land subsidence due to groundwater extraction; long-term land surface elevation changes to determine whether such changes are elastic and/or inelastic. Potential components could include: i. Semiannual surveying of a network of benchmarks and other survey points in areas where previous data and (or) groundwater-level declines within confined aquifer zones suggest the potential for subsidence ii. Continued monitoring of sites recorded and reported through the existing PBO GPS stations.
5.2.1.4	*Surface Water-Groundwater Interaction Monitoring*
	a. Continue to compile available stream gauge data and information on tributary flows in the Plan Area.
	b. Determine current surface water quality sampling being conducted in the Plan Area.
7 votes	a. Project to analyze and as Necessary Re-Activate Existing Stream Gauges and Install New Gauges in the Plan Area: Three stream gauging stations that measure discharge and stage in the Plan Area would be analyzed for priority and need of evaluating water budget and surface water-groundwater interaction evaluation purposes Stream gauges would be re-activated or added based on need and usability.

4 votes	b. Project to install new shallow monitoring wells along major watercourses: Install new shallow monitoring wells along major watercourses to further assess surface water and groundwater interactions.
2 votes	c. Project to conduct seepage runs along major watercourses: Conduct seepage runs to further assess surface water and groundwater interactions. Correlate groundwater level data from wells in the vicinity of stream gauges to further establish connectivity of the creek water and groundwater.
0 votes	d. Project to study Stable Isotope Study to Understand Surface Water-Groundwater Flow: Analyze existing samples and collect new surface water and groundwater samples for isotopic and other natural or anthropogenic tracers to evaluate surface water and groundwater interactions.
5.2.1.5	*Hydrometeorological Monitoring*
	a. Develop inventory of existing hydrometeorological stations including sensors, and of data collection and management protocols and plans for future expansion.
5 votes	b. Develop a protocol and work plan for compiling rainfall data on a water-year basis to develop isohyetal maps as warranted, for comparison with groundwater level trends, to augment periodic GMP reports and update the model.
4 votes	c. Evaluate rainfall data distribution and determine the need for additional data; consider CoCoRAS and automated systems for possible rainfall monitoring station expansion, and develop plans for future efforts.
2 votes	d. Identify and develop strategies for collecting hydrometeorological data needs for surface water-groundwater flow model, working with the NOAA NOAA Earth Sciences Research Laboratory and Scripps Center For Western Weather and Water Extremes.
5.2.1.6	*Monitoring And Reporting Protocols*
	a. Develop a schedule to coordinate the time of sampling and the sampling interval (time between samples) to ensure consistent data collection frequency.
3 votes	b. Coordinate the various existing and planned monitoring efforts to ensure uniform, standard water quality data collection protocols are followed.
	c. Use a Standard Operating Procedure (SOP) for the collection of groundwater level data for wells (Appendix __).
	d. Provide DPH guidelines on the collection, pretreatment, storage, and transportation of water samples intended for water quality analyses (Appendix __).
	e. Develop field and office quality assurance practices for the program. For future individual studies in the Plan Area, review project-specific quality assurance/quality control procedures for collecting groundwater quality samples.
	f. At the onset of the GMP monitoring program, prepare and distribute a stand-alone Sampling and Analysis Plan incorporating the management program component elements for use by monitoring organizations.
	g. Provide training on water level sampling to volunteer well owners as needed.
5.2.1.7	*Data Management*

	a. Maintain and update the central GIS data management system including GIS layers and other data formats related to groundwater, hydrology, geology, land use, and relevant imagery.
	b. Work with cooperating agencies, including DWR, Cotati, Rohnert Park, Santa Rosa, Sebastopol, Windsor, PRMD, and any other non-governmental entity, to provide data for updating the database periodically.
	c. Adopt flexible, standard formats for data collection, transfer protocols, reporting, and quality assurance-quality control checks to facilitate regularly scheduled data updates.
	d. Use the GIS data management system to assist in periodic data evaluations and prepare the Periodic Plan report summarizing groundwater conditions within the Plan Area and documenting groundwater management activities conducted in the previous year while protecting any confidential information, per requirement of Water Code, Division 7, Chapter 10, Article 3, Section 13752..
4 votes	a. Project to compile, screen and review State Department of Public Health, DWR Well Logs and PRMD records as an additional data source, especially for aquifer test data and parameters, to improved aquifer parameterization and maps.
2 votes	b. Make data in the GIS data management system data publically available to Plan Area stakeholders and the wider public, while protecting any confidential information, per requirement of Water Code, Division 7, Chapter 10, Article 3, Section 13752.
2 votes	c. Project to develop and coordinate related data including GIS layers and other data formats on topics that include low flow conditions, recharge and discharge areas, impervious areas, land cover, drainage networks, historical hydrology and land cover, seasonal springs and areas of seepage, and wetlands distribution.
5.3.1	*Maintain Groundwater Levels*
6 votes	a. Should monitoring data indicate persistent groundwater level declines in a particular part of the Plan Area, provide notifications to groundwater users regarding declining trends to promote awareness of the issue and foster increased conservation efforts and reduced groundwater demands.
6 votes	b. Support and enhance water conservation goals for reducing groundwater demands, with local and region-wide incentive programs.
4 votes	c. Evaluate historical groundwater level trends in the Plan Area, and identify subareas and scenarios that are more vulnerable to groundwater level declines.
4 votes	d. Provide information to the public on the importance of groundwater monitoring, maintaining groundwater levels and promoting voluntary groundwater level monitoring across the Plan Area.
1 vote	e. Where feasible, promote and support small- and large-scale groundwater recharge, water conservation and increased recycled water use, where feasible, to help maintain groundwater levels and reduce groundwater demands.
5.3.2	*Prevent Adverse Interactions Between Surface Water and Groundwater*
4 votes	a. Encourage activities that protect surface water quality with a particular focus on areas where surface water recharges

	groundwater.
2 votes	b. Support a surface water-groundwater interaction monitoring program to better understand the potential for adverse interactions and identify vulnerable areas.
1 vote	c. Where reductions in streamflow related to shallow groundwater level declines may be identified, inform local stakeholders and encourage activities to adjust the amount, location and/or timing of groundwater pumping to reduce potential impacts. Such activities may include additional conservation measures, adjusting pumping scenarios spatially and in time, and using alternative water sources if available.
5.3.3	*Well Construction, Maintenance, Protection, Abandonment and Destruction*
	a. Review Chapter 25B and provide suggestions to PRMD on the well permit application requirements to improve the collection of hydrogeologic information through working with drillers, well owners, and other parties familiar with groundwater conditions in the Plan Area.
3 votes	b. Identify management approaches that can be used to protect the water supply from potentially contaminating activities including voluntary control measures, public education, zoning restrictions or ordinances, development of contamination contingency plans, and minimizing pollution around wellhead protection zones.
3 votes	c. Study to conduct Well/Abandoned Well Survey: Conduct an inventory and survey of active and inactive wells in the Plan Area to identify potential abandoned wells, and develop an approach for possible grant funding which would provide incentives to properly destroy abandoned wells. Prioritize efforts in areas where known improperly abandoned wells are known to present water quality concerns.
3 votes	d. Project to distribute Guide for Well Owners: Distribute the Wellness Guide to local well owners within the Plan Area which covers the County's well construction, abandonment and destruction requirements, well head protection information, and tips for ensuring that wells are properly maintained, and monitoring.
2 votes	e. Provide guidance, as appropriate, on well construction and destruction to well owners, operators, and licensed well drillers and service providers.
1 vote	f. Review the USGS report on the Santa Rosa Plain (USGS, 2013) and update Sonoma County information and maps on groundwater conditions.
0 votes	g. Study to obtain Better Information During Well Installations: Develop a program to obtain better hydrogeologic information on new well completions in the Plan Area. Such information can be obtained by requesting, on a voluntary basis, the well permittee to allow for collection of additional geologic information during drilling.
5.3.4	*Mapping and Protecting Groundwater Recharge Areas*
	a. Provide the groundwater recharge area map to and meet with PRMD, the County and local planning agencies to be sure that of groundwater recharge factors are considered in local land use planning decisions.
5 votes	b. Provide recommendations on the areas that are most vulnerable to loss of recharge capacity and to water quality impacts

	from land use activities.
3 votes	c. Collaborate with local organizations (e.g., the Sonoma County Agricultural Preservation and Open Space District, Land Trust, etc.) to encourage protection and preservation of recharge areas.
3 votes	d. When new developments are planned for primary recharge zones, encourage designs that maintain or increase the site's pre-development absorption of runoff.
2 votes	e. Discourage land use activities in recharge areas that have higher potential to contaminate groundwater resources.
0 votes	f. Periodically update the recharge area map as new information becomes available through future studies and monitoring programs.
5.3.5	*Evaluation, Distribution and Remediation of Contaminated Groundwater*
	a. Coordinate periodically with the RWQCB and Sonoma County Environmental Health Department regarding any new reports of contaminant sites that are potential threats to groundwater.
2 votes	b. Share available information on impacted wells, mapped contaminant plumes and contaminant sites with Plan Area licensed water system operators and private well owners.
1 vote	c. Incorporate GIS layers showing mapped contaminant plumes and contaminant sites, supplied by the Regional Water Quality Control Board (RWQCB) and Sonoma County Environmental Health Department into the GIS data management system.
	d. Provide rural well owners with Sonoma County Department of Health Services guide, *What You Need to Know About Water Quality in Your Well*.
5.3.6	*Identify and Provide Information to the Public on Groundwater Protection*
3 votes	a. Conduct a periodic forum on groundwater in the Plan Area and develop educational materials in hard copy, electronic for web-based sites and YouTube, and make them easily accessible on the Plan Project website.
2 votes	b. Review and as necessary and appropriate, update the ***WELLness – A Guide to You Water Well*** document, prepared by the Sonoma County Department of Environmental Health Services, to address the Plan objective for this management component. Post the updated guide on the Plan Project website for easy access, and distribute information to the public on the availability of this resource.
5.4.1	*Continue and Increase BMPs for Urban Water Conservation*
	a. Continue Implementing BMPs and Report Annually: Continue implementing, maintaining and updating CUWCC BMPs, as appropriate, for urban areas. Annually report estimated savings for ongoing water conservation programs.
3 votes	b. Increase water use efficiency and demand reduction by shifting landscape irrigation to evenings, and so reduce evapotranspiration. Include development of educational materials and a public outreach component.
1 vote	c. Assess current successes and develop potential options to increase BMPS for urban water conservation.
5.4.2	*Voluntary Water Conservation BMPs for Unincorporated Areas*
5 votes	a. Develop water conservation BMPs for voluntary non-viticulture agricultural and agricultural-residential water users.

	Explore additional water conservation measures for agricultural operations.
4 votes	b. Develop program, incentives and funding for voluntary implementation of CUWCC water conservation BMPs in the unincorporated County areas not served by Contractors
3 votes	c. Develop incentives for conservation BMP retrofits during real property transactions in unincorporated County areas not served by Contractors.
2 votes	d. Encourage viticulture agriculture to increase water conservation by using the Code of Sustainable Winegrowing Practices Workbook (Wine Institute and California Association of Winegrape Growers, 2013) and Vineyard Manual (Southern Sonoma County Resource Conservation District, 2012?) to address soil erosion and surface water runoff.
5.5.1	*Stormwater Recharge by Infiltration*
5 votes	a. Conduct feasibility level analysis and pilot scale testing of stormwater capture and groundwater recharge to assess volumes, timing, best locations, estimate costs and potential benefits of implementation.
5 votes	b. Project to develop and implement pilot-scale and subsequent large-scale projects to recharge groundwater with stormwater runoff capture and rainfall harvesting in the Plan Area. Examples include: i. Off-stream spreading basins and percolation ponds. ii. Temporary wet season flooding of public lands such as parks or open space. iii. Rainfall harvesting and stormwater runoff recharge with dispersed, low impact development infiltration trenches and dry wells, with possible incentives for retaining water on-site
4 votes	c. Collect and analyze stream gauge data to evaluate potential stormwater capture projects.
2 votes	d. Incorporate water quality sampling of high flow surface water and storm water flows on project specific basis for recharge.
1 vote	e. Project to make controlled releases of captured stormwater to streams during late summer and early fall when conditions are typically dry in order to maximize the aquifer recharge and improve fish habitat conditions.
5.5.2	*Aquifer Storage and Recovery and Groundwater Banking*
4 votes	a. Conduct pilot scale testing of groundwater banking using drinking water from the Russian River to assess feasibility, potential water quality interactions, volumes, monitoring needs, timing, best locations, estimate costs and potential benefits of implementation.
2 votes	b. Based on results from pilot-level ASR groundwater banking, assess the need for additional studies to further evaluate project- and regional opportunities for expanded conjunctive use in the Plan Area.
1 vote	c. Develop and implement full-scale ASR groundwater banking projects that use wet season and wet year Russian River drinking water for groundwater banking.
5.5.3	*Surface Water Use In Lieu of Groundwater*
1 vote	a. Evaluate potential funding opportunities for an in lieu recharge program.
0 votes	b. Develop an integrated surface water/groundwater supply program to guide the conjunctive use of surface water and

	groundwater in a coordinated fashion. Parameters for the program would likely incorporate yearly and monthly climactic scenarios (e.g., precipitation and reservoir storage levels), historical groundwater pumping and groundwater level trends, and anticipated demands.
5.5.4	*Low Impact Development (LID) in New Construction*
	a. Provide information to local community planners and developers on the Water Smart Development Guide and promote LID in new construction.
0 votes	b. Develop incentives for local communities to employ LID in new construction such as reduced connection and permitting fees.
	c. Provide information to rural property on the Slow It Spread It Sink It Guide and promote LID in rural settings.
5.6.1	*Increase Recycled Water for Agricultural Irrigation*
5 votes	a. Where feasible, promote and support increased recycled water use for large and small scale agricultural irrigation to reduce groundwater demands.
2 votes	b. Coordinate with local wastewater treatment plant operators to catalogue current operations and agricultural recycled water applications in the Plan Area.
2 votes	c. Evaluate opportunities for the use and storage of recycled water during the wet season, and subsequent use during the dry season.
1 vote	d. Provide educational information to the Public on the appropriate use of recycled water for agricultural irrigation.
5.6.2	*Increase Recycled Water for Landscape Irrigation*
4 votes	a. Promote and develop incentives for the installation of purple piping in new developments in areas where recycled water availability may increase.
2 votes	b. Provide ongoing public education and outreach to local communities to continue to promote expansion of recycled water use expansion, and to gage and address public concerns.
2 votes	c. Coordinate with local wastewater treatment plant operators to catalogue current operations and landscape recycled water applications in the Plan Area.
2 votes	d. Evaluate opportunities for the use and storage of recycled water during the wet season, and subsequent use during the dry season.
5.6.3	*Graywater for Domestic Landscape Irrigation*
3 votes	a. Make information available to the pubic that graywater systems are eligible for financing under the Sonoma County Energy Independence Program.
2 votes	b. Encourage and promote expanded graywater use by local authorities providing financial incentives such as rebates or low-interest financing and by offering free technical support.
2 votes	c. Develop and make readily available educational material that can help ensure that homeowners properly install and

	maintain graywater systems, including backflow prevention.
2 votes	d. Promote local agencies and communities to develop plans and policies regarding graywater permitting requirements and potential public education efforts.
5.7.1	*Groundwater Management and Land Use Planning*
	a. Brief local agency planning departments periodically on groundwater management program activities and milestones.
	b. Conduct an annual or biennial meeting between the Plan Panel and TAC and local agency planners in the Plan Area exchange information on processes and programs, and to identify constraints and barriers.
5.7.2	*Monitor and Track UWMP Progress and Incorporate Revisions into GMP Updates*
	a. Obtain updates every five years of all UWMPs prepared in the Plan Area.
	b. Incorporate updated UWMP information into the GMP every five years.
5.7.3	*Incorporate Multi-Agency and Organization Integration into GMP*
2 votes	a. Develop an inventory of all agencies and organizations with water-related interests, mandates or jurisdiction within the Plan Area and provide information to the identified agencies and organizations on the Panel's efforts and recommended actions.
2 votes	b. Conduct workshops with and for interested agencies and organizations, as needed, to identify opportunities for integrating overlapping or supporting interests to optimizing efforts, resources, and outcomes.
5.7.4	*Plan for Climate Change*
5 votes	a. Provide information to increase public awareness of current and future water supplies, demands, and trends in reliability related to a changing climate.
2 votes	b. Provide information on projected climate changes in the Plan Area to federal, state, local agencies and other organizations involved with water and land use planning.
2 votes	c. Hold a facilitated workshop on climate change in the Plan Area involving federal, state and local agencies and organizations involved in water and land use planning.
5.7.5	*Multi-Benefit Actions and Activities*
7 votes	a. Identify funding opportunities, project and criteria and the schedule to apply for funds for multi-benefit activities, actions and projects for the Plan Area.
5 votes	b. Hold a TAC meeting focused on discussing future potential multi-benefit activities, actions and projects for the Plan Area.
2 votes	c. Prepare a list of Panel Principles to encourage the development of activities, projects and programs that provide multi-benefit outcomes.
1 vote	d. Develop an inventory of multi-benefit activities, actions and projects currently being implemented or planned in the Plan Area.